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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,180	02/28/2002	Kazumi Ogura	0965-0381P-SP	4893

2292 7590 08/11/2004

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EXAMINER

FASTOVSKY, LEONID M

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/084,180

Applicant(s)

OGURA ET AL.

Examiner

Leonid M Fastovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-12 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the slab-shaped skeletal member with holes in a honeycomb pattern must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6-7 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuyuki (JP10321354) in view of Hosokawa (6,623,563) and further in view of Kihira (5,691,811).

Noboyuki teaches a heater device 1, comprising a support base comprising an aluminum support base 3a, a heating element 2, a slab-shaped member 3b disposed so as to be vertically symmetrical with respect to the heating means. However, Noboyuki teaches only that the melting point of the skeletal member is 400 degree Celsius (Table 2) and does not teach the metallic skeletal member and the aluminum having low contents of magnesium and copper. Hosokawa discloses a honeycomb member 117-118 made out of steel, titanium, nickel or mixtures of aluminum (Col. 2, lines 50-60) and an operating temperature around 660 degree C (Col.4, lines 28-31). Kihira teaches a slit plate 2 and that a pattern in this plate like a lattice or a honeycomb-like pattern can be used to produce substantially the same effect (col. 7, lines 38-44). More than that, Applicant himself teaches a honeycomb pattern structure for the skeletal membrane (page 22, lines 12-14 and 20-21). It would have been obvious to one having ordinary skill in the art to modify Noboyuki's device to include Hosokawa's honeycomb member as the art-recognized equivalence of a honeycomb structure and a lattice structure as

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taught by Kihira (col. 7, lines 38-44), and use this member made out these metals to provide the susceptor 111 with mechanical strength at the higher temperature of 850 degree C or more because steel can sustain these temperatures as taught by Hosokawa (Col. 2, lines 44-47). Also, it would have been a matter of design choice to use the aluminum alloy having low contents of magnesium and copper because it was well known in the art that magnesium and copper additives improve the aluminum strength at high temperatures.

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noboyuki in view of Hosokawa and Kihira and further in view of Shamouilian et al (6,440,221).

Noboyuki in view of Hosokawa and Kihira teaches the claimed invention substantially as disclosed and as claimed. However Noboyuki in view of Hosokawa and Kihira is silent regarding the skeletal member having holes in a honeycomb pattern. Shamouilian discloses holes 115 formed in the heater 95. It would have been obvious to one having ordinary skill in the art to modify the modified invention of Noboyuki in view of Hosokawa and Kihira to include holes in the skeletal member to provide a uniform distribution of heat transfer gas to the receiving surface 105 of the member 100 as taught by Shamouilian (Col.4, lines 25-34), because the beneficial improvement in heat transfer for member 100 of Shamouilian's device by having the holes in the surface 105 should also be beneficial for the skeletal member of Noboyuki in view of Hosokawa.

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5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noboyuki in view of Hosokawa and Kihira and further in view of Shamoulian. Noboyuki in view of Hosokawa and Kihira teaches the heating device 1 for holding an article to be heated. However, Noboyuki in view of Hosokawa and Kihira does not teach a film material throwing means. Shamoulian discloses an article 70 to be heated and film material throwing means 45 and 50 for throwing a material for a film onto the article. It would have been obvious to one having ordinary skill in the art to modify the invention of Noboyuki in view of Hosokawa and Kihira to include the film throwing means to process a semiconductor substrate 70 under uniform temperature control system 145 as taught by Shamoulian (Abstract and Col. 3, lines 57-67), in order to prevent temperature-induced stresses in the semiconductor substrate.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noboyuki in view of Hosokawa and Kihira because it claims product by process. Because the product- the heater device- is rejected over Noboyuki in view of Hosokawa and Kihira as stated above, claim 9 is also rejected because it claims the making of a prior art product (See MPEP 2113).

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

***Response to Arguments***

8. Applicant's arguments with respect to claims 1,2 and 6-12 have been considered but are moot in view of the new ground(s) of rejection.

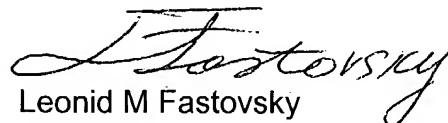
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 703-306-5482. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

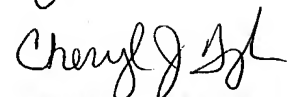
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-3055766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leonid M Fastovsky  
Examiner  
Art Unit 3742



**CHERYL J. TYLER**  
**PRIMARY EXAMINER**

lmf